

### **EXAMINER'S AMENDMENT**

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with William M. Lee, Jr., Reg. No. 26,935 on 10/27/08.

The application has been amended as follows:

#### **IN THE CLAIMS:**

Cancel Claim 112.

#### ***Allowable Subject Matter***

Claims 67, 68, 73, 76, 79, 81, and 82 are allowed.

The following is an examiner's statement of reasons for allowance:

With respect to Claim 67, the prior art of record teaches many of the elements of the claimed invention, including a material discrimination system including: a high energy x-ray source; a first detector component in the form of a thin scintillation crystal for registering an amount of energy deposited by an x-ray that is essentially independent of the x-ray energy; a thicker one-piece downstream scintillation crystal; a

low-z converter situated between the thin crystal and the thicker crystal to stop electrons produced by x-ray interactions downstream of the thin crystal from being significantly backscattered into the thin crystal and prevent electrons leaving the thin crystal from returning and depositing more energy in the thin crystal; a plurality of read-out devices for detecting light energy emitted by the crystals and generating respective electrical output signals in response thereto; wherein a pair of read-out devices is provided to read out from opposite sides of the crystals; and wherein the output signal from one readout device on each side of the crystals is added to the output signal to reduce any left/right asymmetry in the output signals.

However, prior art does not teach or fairly suggest the system wherein the pairs of read-out devices on the thicker crystal read out at different respective depths in the beam direction, in the manner required by Claim 67.

Claims 68, 73, 76, 79, 81, and 82 are allowed by virtue of their dependency.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANASTASIA MIDKIFF whose telephone number is (571)272-5053. The examiner can normally be reached on M-F 7-4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Glick can be reached on 571-272-2490. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/A. M./  
Examiner, Art Unit 2882  
10/27/08

/Edward J Glick/  
Supervisory Patent Examiner, Art Unit 2882